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ABSTRACT

This trainer's guide is intended to assist supervisors of work-based career training projects in helping students integrate crop records and market returns with computer analysis and interpretation of results. The guide is one in a series of core curriculum modules that is intended for use in combination on- and off-the-job programs to familiarize youth with the skills, knowledge, and attitudes necessary for success in the workplace. Included in the guide are the following components: notes on computer literacy, project information, a summary of the content and approach of the guide, supervisor's notes, background information, lists of tasks and core skills, an action plan that includes suggested learning activities, supervisor and trainee review sheets, and an assessment form. (KC)

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Youth Training Scheme

CORE EXEMPLAR WORK BASED PROJECT

FD265330

Monitoring horticultural crop returns using a microcomputer system

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PROJECT No: S|23

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ESF
CORE SKILLS PROJECT
YTS

The Further Education Staff College
Coombe Lodge, Blagdon, Bristol, BS18 6RG ✆0761-62503

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ISBN 0-948361-22-0

ASSESSMENT OF CORE SKILLS

This series of projects contains a number of different formats for recording assessment of core skills. These formats are offered for experimental purposes; none is proven as the 'best' method. All are based on the principle that feedback to trainees is a necessary part of the learning process and that such feedback should include information on core skill development.

Further work is being carried out on the methods of assessing achievement of core skills in work-based learning and of how to log such achievement on a record which trainees can take away from YTS. Some of the results of this work will be included in later MSC/ESF Core Skills Project publications.

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Project Record Form

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INTRODUCTION

WHAT ARE WORK-BASED PROJECTS?

Work-based projects are learning materials which aim to make the most of all the possibilities for developing trainees' skills, knowledge and attitudes in the workplace. They build upon everyday workplace tasks to provide experience of the whole range of YTS learning opportunities.

The projects in this series have been tested with managing agents as part of the YTS Core Project, which is jointly financed by MSC and the European Social Fund. In some cases managing agents will be able to use the projects as they are. In others they will need to be adapted to the circumstances of a particular workplace or to the aims of a particular scheme. Some managing agents will prefer to produce their own projects. For such cases these examples aim to demonstrate some principles of good design in work-based learning materials. These principles are:

To encourage trainees to learn by doing
To make the most of all the experiences which are available to trainees in the workplaces.
To start from a real task which is seen as relevant by all parties involved — trainees, workplace supervisors, trainers and off-the-job tutors.
To help trainees see the relationships between things learnt on- and off-the-job.
To base the assessment of achievement upon trainees' actual performance in tasks.
To look for all the opportunities for learning which arise from a task and, in particular, to help trainees to develop the core skills. These skills, in number, communication, problem-solving and practical activities, are used in a wide variety of tasks and are essential if trainees are to achieve competence in those tasks*. They are the skills — of finding out information, planning how to do things, overcoming difficulties and so on — which help trainees to learn more quickly in new situations, either in the same workplace, in a different one, or in the world outside work.

Such skills are required naturally by the workplace tasks in these projects and, in requiring trainees to go beyond the task itself, the projects deliberately *add* to the range of core skills which are required in an everyday working situation. This is especially important for some of the skills of communication and problem-solving which trainees are often not given the opportunity to exercise in work experience.

These principles can be incorporated in projects for all placements and for trainees of all ability levels. Although the projects in this series follow a common format, there is no single 'best' style. Nor is any special expertise in writing necessary. Good work-based projects can be produced by anyone who is determined to help trainees to exploit all of the potential for learning in work experience.

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*A technical manual 'Core Skills in YTS' is currently available from MSC. It is supported by a short introductory leaflet and a practitioner's guide for supervisors. A separate manual is available on computer literacy/information technology.

NOTES ON COMPUTER LITERACY

(1) This Project assumes the trainee has some operational and keyboard skills. For example, it is assumed that the trainee can start up the system, use the keyboard, operate peripheral devices, and load files. It also assumes that there has been previous experience of appropriate software.

(2) It is suggested that many of the operational and file handling skills are best acquired in the context of games and personal software applications, and not learned in isolation from hands-on experience. Experience on as wide a range of hardware and software as possible should be provided, to encourage transferability of these skills.

(3) This and related Projects are intended to be used as a means to consolidate and develop these skills, in applications which are relevant to a wide range of Occupational Training Families.

(4) These Projects are generalised - that is, they are not specific to particular hardware or software. They should, therefore, be interpreted and implemented in relation to the systems available.

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PROJECT INFORMATION

SUBJECT CHOICE: "HORTICULTURAL CROP RETURNS USING A MICROCOMPUTER"

This Project is intended to integrate packhouse records and market returns with computer analysis and interpretation of the results of the analysis.

WHERE IT CAN BE USED/COULD BE USED:

This Project could be used on-the-job if the necessary computer resources are available; or in an off-the-job computer literacy element by using records previously collected on-the-job.

STAGE(S) IN TRAINING PROGRAMME THE PROJECT WAS/COULD BE USED:

It is not advised that this Project be used as a basic introduction, since it assumes previous knowledge and skill.

LINK UP WITH OTHER WORK-BASED PROJECTS:

The introductory Project "Using a Microcomputer S[illegible]em" could be used before this. Other Projects using a modelling pr[illegible]ram are "Recording Milk Yield" and "Calculating the Profitability of Christmas Turkeys".

SPECIAL CIRCUMSTANCES:

The Project requires the trainee to have had prior experience of hardware and a demonstration of the software appropriate to this task.

ADAPTATIONS/MODIFICATIONS:

The Project is written so that it is not dependent on particular computer hardware. The software used could be a specialist package or an adapted spreadsheet package preferably integrated with a graph-plotting routine.

USE OF OFF-THE-JOB TUTOR:

This Project could be completed in the workplace, or in an off-the-job situation using data collected on-the-job.

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SUMMARY

This Project asks the trainee to:

- enter crop and market return data to produce graphs;
- relate these to a previous period;
- identify trends and consider possible causes;
- suggest ways of improving the enterprise.

SPECIAL FEATURES

Prior experience of hardware and software is assumed.

SUPERVISOR'S NOTES

The trainee should have prior experience of the computer system, and be aware of how to plug in, switch on and get the system operating. He/she should also know the keyboard controls (escape, break etc.). Make sure that the trainee has access to Operator's Manuals if these are appropriate to his/her ability; or clear step-by-step instructions on the use of hardware and software.

It would be more worthwhile for the trainee to collect real data from a packhouse and from a grower's market returns. If this cannot be organised then used packhouse slips will need to be used for the price section.

If the trainee is not associated with a real packhouse operation then a "manager's diary" could be used. This would include information which the trainee could link up to the data which he is handling, e.g. breakdowns, bad weather, shortage of pickers as possible reasons for changes in output, grading etc.

If more than one trainee is using the same data, a back-up copy is vital.

NAMES

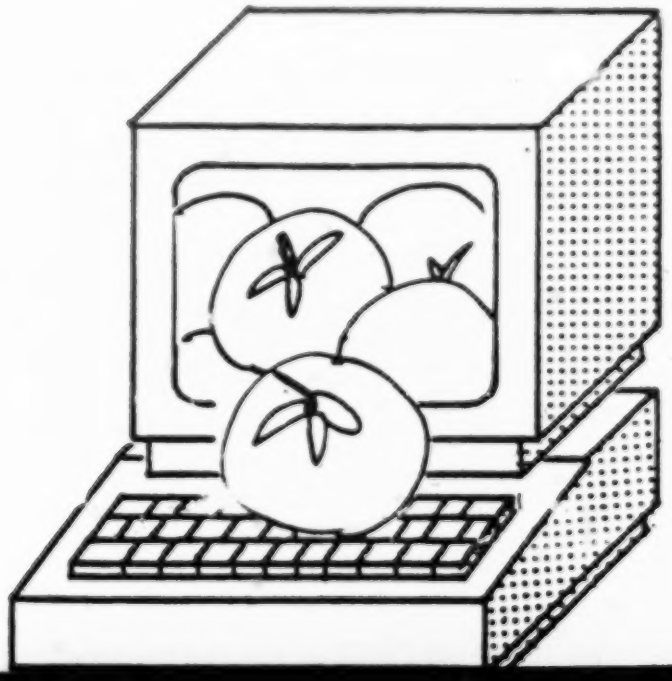
Trainee _____

Supervisor _____

TIMES

Fill in the table below. This will show the time you spend on this Project. The first column has been filled in as an example. Make another table if you need more space.

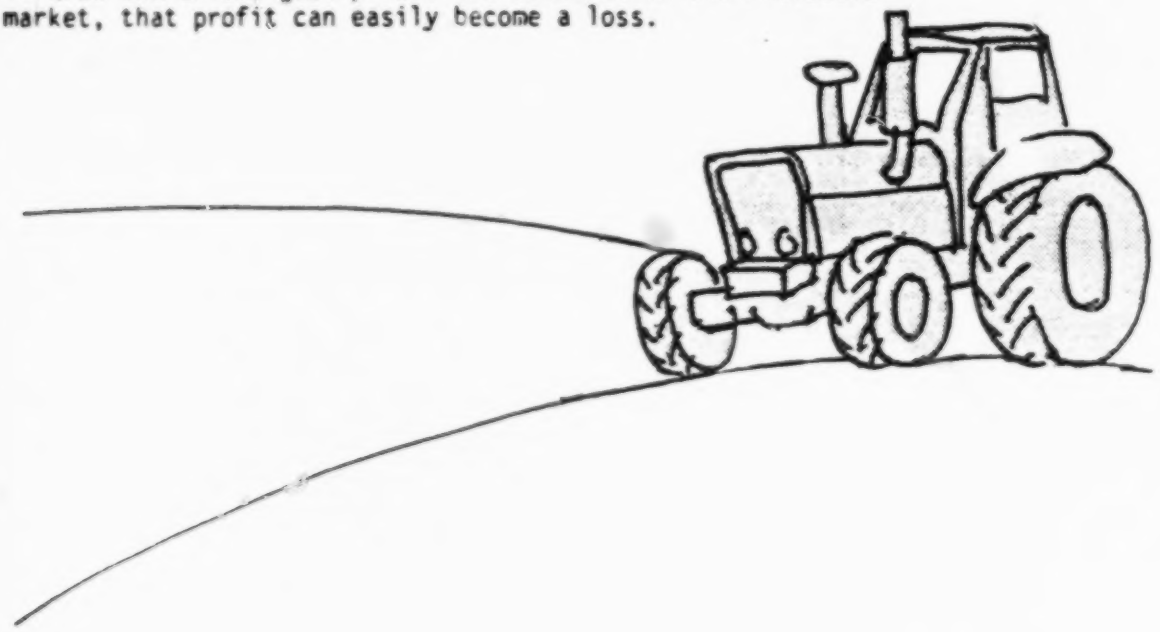
Date	9/4/84					
Start	9·30					
Finish	12·30					TOTAL
Time Spent	3 hours					



BACKGROUND

2

Horticultural crops can be very profitable, but are very expensive to grow and unless good prices are obtained in the wholesale market, that profit can easily become a loss.



SITUATION

A grower using such a system would normally have the microcomputer system in the office.

PURPOSES

Doing this Project will help you to learn more about your work. It will also help you to develop your Core Skills (Number, Communication, Problem Solving, Practical and Computer Literacy Skills). Increasing your competence in these skills will make it easier to learn new work skills, change jobs, and retrain when the need arises.

The activities that you will be asked to carry out are listed below, along with the main Core Skills that they contain. These Core Skills are also listed on the "Project Record " Form at the end of the Action Plan and your Supervisor should assess your achievements in these skills as you complete the Project. This record will be needed to complete your Certificate at the end of your YTS Year.

To help you to:	Core Skills:
start up, operate and close down a microcomputer system	12.6 carry out start up procedures 13.4 operate and control equipment 14.1 carry out procedures to turn off equipment
interpret diagrams and data showing market returns	2.1 interpret numerical data or symbols in written or printed form 2.2 interpret diagrams and pictorial representations
compare crop production figures and prices for two periods	1.4 compare numerical information from different sources
decide how a grower can change things to make more money	10.3 decide between alternative courses of action
follow appropriate safety procedures	13.1 adopt safe working practices
use a spreadsheet program to look at production and prices	C.L. use a modelling package
handle magnetic files	C.L. load and save magnetic files

Please read the questions asked in the Trainee Review Section.

ACTION PLAN

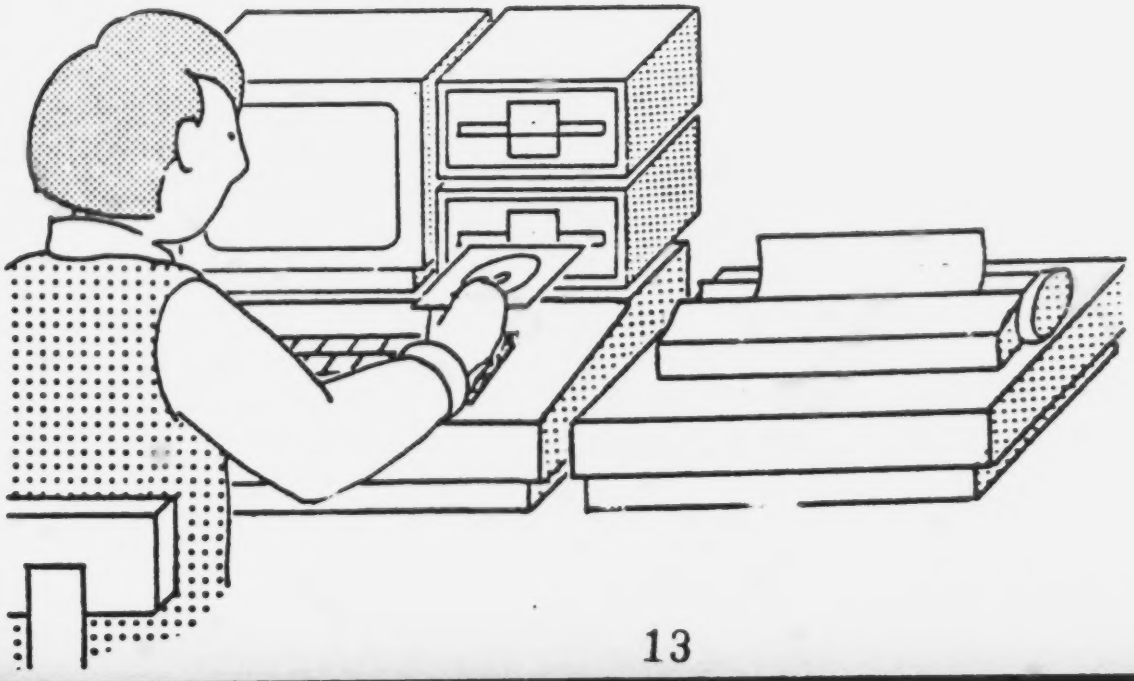
4

Read through this Action Plan carefully before you start.

Make sure you know which equipment. magnetic files(program and data), stationery etc. to use.

You will need the latest returns from the packhouse and the market returns achieved.

Set up and check your equipment; make sure it can be used safely.



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ENTERING LATEST DATA

Load the software (program and data) into the computer.

- Enter the return from the packhouse for the previous week/month for as many crops as you are monitoring. Show the number of each product packed.
- Enter the returns from the market for the previous period for the crops you are monitoring. Show the prices obtained for the produce sold.
- The program will then add this information to the data it already has stored in memory.
- If your computer system allows, copy this information to magnetic files - including a back up copy.

MONITORING

The program will produce a graph or graphs showing the total number of cases produced, number of cases produced in each grade, and the prices from the market.

Check the stationery is properly loaded into the printer. Give the correct commands to print-out the graphs for each of the crops you are looking at.

Using the graphs, write down on a piece of paper the answers to these questions:-

- Did the holding produce more or fewer cases this week/month than last week?
- Was the proportion of top grades better or worse than last week/month?
- Did market prices rise or fall during the period?

Now using this information, and either your knowledge of recent events on the holding or information supplied by your Supervisor note down:

- What could be causing the movement in market prices?
- Why is the holding producing more or less cases than before?
- Is there any reason why the proportion of crop grades has changed?
- How can the grower change these things to make more money?

This should be repeated for each crop that you are doing.

FINISHING 6

Check that - the equipment is left in a safe condition

magnetic files are safely returned to storage

stationery is returned to storage.

DEVELOPMENT

Can you think of any way in which the program could be improved to help the grower keep track of sales and prices and so make the best possible profit?

BEFORE YOU START

How long do you think it will take to carry out this Action Plan?

WHEN YOU HAVE FINISHED

How long did it take to carry out the Action Plan?

Was this more/less than you estimated?

Why?

TRAINEE REVIEW

These questions may help you to decide what to write.

What did you learn? Remember the PURPOSES or things that you could learn are listed on Page 3.

Were any parts of the Action Plan too difficult? Which ones? What did you do?

Were any parts too easy? Which ones?

What was the most interesting part of the Action Plan and why?

How could you follow up this Project? Does it connect with other Projects that you have done?

How could you use what you have learned in this Project in the future?

SUPERVISOR REVIEW

8

Please refer to Supervisor's Notes.

Please read the questions included under Trainee Review.

Please complete the Project Record Form and discuss your assessment with the trainee before initialling it to show that you both agree with the assessment.

COMMENTS:

PROJECT RECORD FORM

PROJECT TITLE HORTICULTURAL CROP RETURNS USING A MICROCOMPUTER WBP NO S/55 DATE

TRAINEE'S NAME SUPERVISOR'S NAME

WORK BASED PROJECT		NEEDED A LOT OF ASSISTANCE	NEEDED SOME ASSISTANCE	LITTLE OR NO ASSISTANCE		FURTHER TRAINING NEEDED	COMMENTS INCLUDING NO OPPORTUNITY	AGREED INITIALS	
TASK NO	CORE SKILLS ASSESSED			NEEDS MORE PRACTICE	COMPETENT			TRAINEE	SUPERVISOR
	starting up a microcomputer system 12.6								
	operating a microcomputer system 13.4								
	closing down a microcomputer system 14.1								
	Comparing numerical information from two periods 1.4								
	Deciding between alternative courses of action to make more money 10.3								
	interpreting diagrams showing quantities produced 2.2								
	interpreting numerical data on market movement 2.1								
	Using a modelling package C.L.								
	loading and saving magnetic files C.L.								